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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,758	09/26/2003	Jean-Laurent Pradel	FR-AM1888 NP	9320

31684 7590 01/12/2006

ARKEMA INC.  
PATENT DEPARTMENT - 26TH FLOOR  
2000 MARKET STREET  
PHILADELPHIA, PA 19103-3222

EXAMINER
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PATTERSON, MARC A

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/671,758

Applicant(s)

PRADEL ET AL.

Examiner

Marc A. Patterson

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 and 12-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

**NEW REJECTIONS**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 10 and 12 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robert et al (European Patent No. 1136536).

U.S. Patent No. 6,528,587 B2 is used for translation. With regard to Claims 1 – 2, 5, and 12 – 14, Robert et al disclose a coextrusion tie (coextrusion binder; column 1, lines 7 – 9) which comprises 5 to 35% by weight of a polymer itself composed of a blend of 80 to 20% by weight of a metallocene polyethylene with a density of between 0.863 and 0.915 g/cm<sup>3</sup> and 20 to 80% by weight of a non – metallocene LLDPE polyethylene, the blend of polymers being cografted by a carboxylic acid, the content of the grafting monomer in the blend being between 600 and 5,000 ppm, and 95 to 5% by weight of a polyethylene, the total therefore forming 100%, the blend of the polymers being such that its melt flow index is between 1 and 13 g/10 min; the non – metallocene polyethylene has a density of 0.900 g/cm<sup>3</sup> (column 3, lines 7 – 9); the polyethylene is a metallocene polymer (column 4, lines 33 – 34) having a density of 0.863 and 0.915 g/cm<sup>3</sup> (column 4, lines 52 – 55) and is a copolymer of ethylene with a comonomer having 4 carbon atoms (column 2, lines 33 – 36). With regard to Claims 1 – 2, 5, and 12 – 14, Robert fails to disclose a polyethylene homopolymer having a melt flow index of between 3 and 15 g/10

min. However, Robert discloses a melt flow index of the polyethylene homopolymer which is selected to produce a blend having a melt flow index of between 0.1 and 10 g/min (the blend has a melt flow index of between 0.1 and 10 g/min; column 1, lines 51 – 52).

Therefore, one of ordinary skill in the art would have recognized the utility of varying the melt flow rate of the metallocene polyethylene homopolymer and the blend without the polyethylene homopolymer to obtain the desired melt flow rate of the blend. Therefore, the melt flow rate of the blend would be readily determined by through routine optimization of the melt flow rate of the metallocene polyethylene homopolymer and the blend without the polyethylene homopolymer by one having ordinary skill in the art depending on the desired use of the end product as taught by Robert et al.

It therefore would be obvious for one of ordinary skill in the art to vary the melt flow rate of the metallocene polyethylene homopolymer, thus determining whether the blend has an increase in adhesive strength of 5 to 50% after 8 days, in order to obtain the desired melt flow rate of the blend, since the melt flow rate of the blend would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Robert et al.

With regard to Claim 3, Robert et al disclose a grafting monomer comprising maleic anhydride (column 3, lines 14 – 19).

With regard to Claim 4, Robert et al disclose the interchangeable use of metallocene and ethylene alkyl methacrylate copolymer (column 4, lines 26 – 34) and therefore disclose a tie which additionally comprises ethylene / alkyl methacrylate copolymer.

With regard to Claims 6 – 8, Robert discloses a structure comprising the tie directly between a layer of ethylene vinyl alcohol and a layer of polyester (column 2, lines 7 – 18).

With regard to Claims 9 – 10, the structure disclosed by Robert et al is comprised in a container (fuel tank; column 4, lines 65 – 67), therefore a structure.

### ANSWERS TO APPLICANT'S ARGUMENTS

3. Applicant's arguments regarding the 35 U.S.C. 103(a) rejection of Claims 1 – 10 as being unpatentable over Robert et al (European Patent No. 1136536), have been carefully considered but have not been found to be persuasive for the reasons set forth below.

Applicant argues, on page 4 of the remarks dated October 25, 2005, that the terminal disclaimer which was filed on April 29, 2005, must be a disclaimer for all equivalent foreign cases having the same priority date, otherwise the disclaimer ceases to function in the manner anticipated in the law.

However, because a terminal disclaimer only obviates an obviousness double patenting rejection, it is unclear why a rejection over foreign prior art would be affected; furthermore, no law has been cited.

Applicant also argues, on page 5, that the effect of a terminal disclaimer is to tie affected patents together.

However, it is unclear what 'tying together' mechanism is referred to by Applicant, since foreign prior art is not affected.

Applicant also argues, on page 6, that while Robert et al list a metallocene polyethylene, it is listed with many other types of polyethylenes, and there are no examples using the metallocene polyethylene.

However, because Robert et al list a metallocene polyethylene, a metallocene polyethylene is disclosed by Robert et al, as claimed.

Applicant also argues on page 6, that because use of a metallocene polyethylene for improved adhesiveness is not disclosed, its use cannot be optimized by routine experimentation.

However, the rejection above only states that the melt flow index of the metallocene polyethylene is optimized; the melt flow index of a component of a blend furthermore, is a result effective variable with regard to the melt flow index of the blend.

Applicant also argues on page 6 that it is shown in experiments of the claimed invention that superior adhesive properties are produced by use of metallocene polyethylene.

However, as stated above, metallocene polyethylene, and therefore the adhesion obtained, is disclosed by Robert et al.

Applicant also argues on page 6 that the Robert et al teaches away from the claimed invention by exemplifying only LLDPE with a 1 – butene comonomer, which is outside the scope of the claims.

However, Robert et al is not limited to LLDPE with a 1 – butene comonomer; furthermore, it is unclear why the comonomer is outside the scope of the claims.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497.

The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Marc Patterson 1/9/06*  
Marc A. Patterson, PhD.  
Examiner  
Art Unit 1772